## MV-22 Osprey

### DESCRIPTION

The MV-22 Osprey tiltrotor is an advanced-technology vertical/short takeoff and landing (V/STOL), multi-purpose tactical aircraft that will replace the current fleet of Vietnam-era CH-46E and CH-53D aircraft. The MV-22 will join the Expeditionary Fighting Vehicle and Landing Craft Air Cushion as an integral part of the Seabasing pillars necessary to execute Expeditionary Maneuver Warfare. Specific missions include expeditionary assault from land or sea, raid operations, medium cargo lift, tactical recovery of aircraft and personnel, fleet logistics support, and special warfare. The MV-22's design incorporates the sophisticated, but mature, technologies of composite materials, fly-by-wire flight controls, digital cockpits, airfoil design, and advanced manufacturing processes. The MV-22 Osprey has a 350 nautical mile combat radius, cruises at 255 knots and is capable of carrying 24 combat-equipped Marines or a 10,000 pound external load. With a 2,100 nautical-mile, single aerial refueling range, the aircraft also has a strategic self-deployment capability. The MV-22's prop-rotor system, engine, and transmissions (collectively referred to as the nacelle) are mounted on each wing tip and allow it to operate as a helicopter for takeoff and landing. Once airborne, the nacelles rotate forward 90 degrees, transitioning the MV-22 into a high-speed, high-altitude, fuel-efficient, turbo-prop aircraft. The MV-22 is a multi-mission aircraft designed for use by all the services. The Marine Corps, Navy, and Air Force are committed to the fielding of this unique aircraft.

### OPERATIONAL IMPACT

The MV-22 will be the cornerstone of Marine Corps' assault support capability, possessing the speed, endurance, and survivability needed to fight and win on tomorrow's battlefield. This combat multiplier represents a quantum improvement in strategic mobility and tactical flexibility for expeditionary and Maritime Prepositioning Forces (MPF).

### PROGRAM STATUS

The MV-22 aircraft will be produced using a block approach:

Block A series aircraft will provide an improved aircraft with which the Marine Corps can train. This includes a software enhancement, nacelle reconfiguration, and additional reliability and maintainability improvements. These aircraft will remain at VMMT-204 and will not deploy. There are 29 Block A aircraft that have been delivered to and are currently on flight line at MCAS New River.

Block B series aircraft will be the first MV-22s to deploy. These aircraft will provide further improvements in effectiveness and maintainability for operators and maintainers, including improved access to the nacelle for inspection purposes and substantial reliability and maintenance improvements. The first Block B aircraft was delivered to the Marine Corps in 2005 and there are currently 15 MV-22B Block B aircraft.

Block C configuration will incorporate mission enhancements. These enhancements include the addition of a weather radar, a forward firing ALE-47 dispenser, improved hover coupled features, an improved environmental conditioning system (ECS), and a troop commander situational awareness station.

| Procurement Profile (Block B): | FY 2007 | FY 2008 |
|---|---|---|
| Quantity: | 14 | 21 |

Developer/Manufacturer:
Bell Helicopter Textron, Fort Worth, TX
The Boeing Company, Philadelphia, PA